

APPENDIX A

(clean version of Claims 1, 47, 50, 57, 66, 69 and 71)

1. (Amended) A process for producing high bulk cellulosic pulp exhibiting a durable elevated curl index comprising:
  - (a) feeding a cellulosic pulp including Kraft fiber to a refining gap defined between opposed surfaces, at least one of the surfaces being rotatable with respect to its opposed surface;
  - (b) concurrently heat-treating and convolving the cellulosic pulp including Kraft fiber in the refining gap at elevated temperature and pressure at high consistency under conditions selected so as to preclude substantial fibrillation and attendant paper strength and fiber bonding development;
  - (c) recovering said pulp wherein the length weighted curl index of the treated fiber is at least about 20% higher than the length weighted curl index of the fiber prior to said heat treatment and convolving thereof, wherein said at least 20% elevation of said length weighted curl index of the treated fiber is capable of persisting for at least 30 minutes in a disintegrator at 1% consistency at a temperature of 125°F.
47. (Amended) The process according to Claim 1, wherein the cellulosic pulp is selected from the group consisting of Kraft hardwood fibers, Kraft softwood fibers, and mixtures thereof.
50. (Amended) A method of making absorbent sheet from cellulosic furnish comprising:
  - (a) thickening a pulp process stream including Kraft fiber to a consistency of from about 20% to about 60%;

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- (b) feeding the cellulosic pulp including Kraft fiber to a refining gap defined between opposed surfaces, at least one of the surfaces being rotatable with respect to its opposed surface;
- (c) concurrently heat-treating and convolving the fiber of said thickened pulp process stream including Kraft fiber in the refining gap under conditions selected so as to preclude substantial fibrillation and attendant paper strength and fiber bonding development such that the length weighed curl index of the fiber is at least about 20% higher than the length weighted curl index of the fiber prior to said heat-treatment and convolving thereof and the 20% elevation of the curl index is capable of persisting for 30 minutes in a disintegrator at 1% consistency at a temperature of 125°F;
- (d) combining said treated pulp process stream with a second pulp process stream to provide a papermaking furnish;
- (e) depositing said papermaking furnish on a foraminous support to form a web; and
- (f) drying said web to make absorbent sheet.

57. (Amended) A method of making absorbent sheet comprising:

- (a) preparing a first cellulosic pulp component exhibiting an elevated durable curl index by way of (i) feeding a cellulosic pulp including Kraft fiber to a refining gap defined between opposed surfaces, at least one of the surfaces being rotatable with respect to its opposed surface; (ii) concurrently heat-treating and convolving the cellulosic pulp including Kraft fiber in the refining gap at elevated temperature and pressure under conditions selected so as to preclude substantial fibrillation and attendant paper strength and fiber bonding development wherein the length weighted curl index of the treated fiber is at least about 20% higher than the length weighted curl index of the fiber prior to heat treatment and

convolving thereof, said 20% elevation in curl index being capable of persisting for 30 minutes in a disintegrator at 1% consistency at a temperature of 125°F;

(b) combining in admixture said first cellulosic pulp component with a second cellulosic pulp component to make a papermaking furnish, said second cellulosic pulp component having a length weighted curl index lower than the length weighted curl index of said first pulp component;

(c) depositing said papermaking furnish on a foraminous support to form a web; and

(d) drying said web to make absorbent sheet.

66. (Amended) A method of making absorbent sheet comprising:

(a) preparing a first cellulosic pulp component exhibiting an elevated durable curl index by way of (i) feeding a cellulosic pulp including Kraft fiber to a refining gap defined between opposed surfaces, at least one of the surfaces being rotatable with respect to its opposed surface; (ii) concurrently heat-treating and convolving the cellulosic pulp including Kraft fiber at elevated temperature and pressure under conditions selected so as to preclude substantial fibrillation and attendant paper strength and fiber bonding development wherein the length weighted curl index of the treated fiber is at least about 20% higher than the length weighted curl index of the fiber prior to heat treatment and convolving thereof, said 20% elevation in curl index being capable of persisting for 30 minutes in a disintegrator at 1% consistency at a temperature of 125°F; and

(b) combining in admixture said first cellulosic pulp component with a second cellulosic pulp component to make a papermaking furnish, said second cellulosic pulp component having been refined at low consistency prior to combination with said first cellulosic pulp component.

69. (Amended) A process for producing high bulk cellulosic pulp exhibiting a durable elevated curl index comprising:

- (a) feeding a cellulosic pulp including Kraft fiber to a refining gap defined between opposed surfaces, at least one of the surfaces being rotatable with respect to its opposed surface;
- (b) concurrently heat-treating and convolving the cellulosic pulp including Kraft fiber in the refining gap at elevated temperature and pressure at high consistency under conditions selected so as to preclude substantial fibrillation and attendant paper strength and fiber bonding development;
- (c) recovering said pulp wherein the length weighted curl index of the treated fiber is at least about 20% higher than the length weighted curl index of the fiber prior to said heat treatment and convolving thereof, wherein said at least 20% elevation of said length weighted curl index of the treated fiber is capable of persisting for at least 30 minutes in a disintegrator at 1% consistency at a temperature of 125°F;
- (d) diluting said pulp to a low consistency; and
- (e) refining said pulp at said low consistency.

71. (Amended) A process for producing high bulk cellulosic pulp exhibiting a durable elevated curl index comprising:

- (a) refining cellulosic pulp including Kraft fiber at low consistency;
- (b) thickening the cellulosic pulp including Kraft fiber to a high consistency;

- (c) feeding a cellulosic pulp including Kraft fiber to a refining gap defined between opposed surfaces, at least one of the surfaces being rotatable with respect to its opposed surface; and
- (d) concurrently heat-treating and convolving said cellulosic fiber pulp at elevated temperature and pressure at said high consistency under conditions selected so as to preclude substantial fibrillation and attendant paper strength and fiber bonding development;

wherein the length weighted curl index of the treated fiber is at least about 20% higher than the length weighted curl index of the fiber prior to said heat treatment and convolving thereof, wherein said at least 20% elevation of said length weighted curl index of the treated fiber is capable of persisting for at least 30 minutes in a disintegrator at 1% consistency at a temperature of 125°F.